RJA 2/18/22
JS 2/23/22

Ecotox Report for Case # P-19-0021

General

[redacted]

Report Status: Complete
Status Date: 12/20/2018
CRSS Date: 11/26/2018
SAT Date:
SAT Chair:
Consolidated Y
Consolidated Set: P-19-0022
PMN:
Ecotox Related Cases:
Health Related Cases:
Submitter: [redacted]
CAS Number: [redacted]
Chemical Name: [redacted]
Use: [redacted]
Analogues (same use): none. Patents (same use): none. Consolidated Set P-19-21-22. [redacted]
Trade Name: [redacted]
PV-max(kg/yr): [redacted]
Ecotox Assessor: Koehrn, Kara

Fate Summary Statement

Fate Summary Statement: P-19-0021-22
FATE: [redacted] with [redacted]
< 500 and [redacted] < 1000
[redacted]
S = Disp.
VP < 1.0E-6 torr
at 25 °C (E)
BP > 400 °C (E)
H < 1.00E-8 (E)
POTW removal
(%) = 90 via sorption

Time for complete ultimate aerobic biodeg > mo
Sorption to soils/sediments = v.strong
PBT Potential:
P3B1
*FATE: Migration to ground water = negl

Physical Chemical Information

Molecular Weight:	[redacted]		
Wt% < 500:	[redacted]	**Wt% < 1000:**	[redacted]
Physical State - Neat:	[redacted]		
Melting Point:		**Melting Point (est):**	
MP (EPI):			
Vapor Pressure:		**Vapor Pressure (est):**	<0.000001
VP (EPI):			
Water Solubility:		**Water Solubility (est):**	Dispersible
Water Solubility (EPI):			
Henry's Law::			
Log Koc:		**Log Koc (EPI):**	
Log Kow:		**Log Kow (EPI):**	
Log Kow Comment:			

SAT Concern Level

Ecotox Rating (1):	1
Ecotox Rating Comment (1):	
Ecotox Rating (2):	
Ecotox Rating Comment (2):	

Ecotox Route of Exposure:	No releases to water

Ecotox Comments

Exposure Based Review (Eco):	N
Ecotox Comments:	
Exposure Based Testing:	

PBT Ratings

Persistence	Bioaccumulation	Toxicity	Comments
3	1	1	

Eco-Toxicity Comment:

Fate Ratings

Removal in WWT/POTW (Overall):	90

Condition	Rating Values	Rating Description 1	2	3	4	Comment
Fish BCF:						
Log Fish BCF:						
WWT/POTW Sorption:	3	Low	Moderate	Strong	V. Strong	
WWT/POTW Stripping:	4	Extensive	Moderate	Low	Negligible	
Biodegradation Removal:	4	Unknown	High	Moderate	Negligible	
Biodegradation Destruction:		Unknown	Complete	Partial	—	
Aerobic Biodeg Ult:	4	<= Days	Weeks	Months	> Months	
Aerobic Biodeg Prim:		<= Days	Weeks	Months	> Months	
Anaerobic Biodeg Ult:	4	<= Days	Weeks	Months	> Months	
			Weeks	Months	> Months	

Removal in WWT/POTW (Overall):	90					
Condition	**Rating Values**	**Rating Description**				**Comment**
		1	**2**	**3**	**4**	
Anaerobic Biodeg Prim:		<= Days				
Hydrolysis (t1/2 at pH 7,25C) A:		<= Minutes	Hours	Days	>= Months	
Hydrolysis (t1/2 at pH 7,25C) B:		<= Minutes	Hours	Days	>= Months	
Sorption to Soils/Sediments:	1	V. Strong	Strong	Moderate	Low	
Migration to Ground Water:	1	Negligible	Slow	Moderate	Rapid	
Photolysis A, Direct:		Negligible	Slow	Moderate	Rapid	
Photolysis B, Indirect:		Negligible	Slow	Moderate	Rapid	
Atmospheric Ox A, OH:		Negligible	Slow	Moderate	Rapid	
Atmospheric Ox B, O3:		Negligible	Slow	Moderate	Rapid	
Bio Comments:						
Fate Comments:						

Ecotoxicity Values

Test organism	Test Type	Test Endpoint	Predicted	Experimental	Comments
Fish	96-h	LC50	>100		Predictions are based on SARs for polyamphoteric polymers with [redacted] amine-N (using amine [redacted] and [redacted]
Daphnid	48-h	LC50	>100		" "
Green Algae	96-h	EC50	>100		" "
Fish	-		>10		

Test organism	Test Type	Test Endpoint	Predicted	Experimental	Comments
		Chronic			"
		Value			"
Daphnid	-	Chronic Value	>10		" "
Green Algae	-	Chronic Value	>10		" "

Ecotox Value Comments: Predictions are based on SARs for polyamphoteric polymers with [redacted] amine-N (using amine [redacted]) and [redacted]; [redacted] with [redacted] <500 and [redacted] <1000; [redacted] with an unknown MP (P); S = dispersible (P); effective concentrations based on 100% active ingredients and nominal concentrations; hardness <150 mg/L as CaCO3; and TOC <2.0 mg/L.

Ecotox Factors

Factors	Most Sensitive Endpoint	Assessment Factor	CoC	Comment
Acute Aquatic (ppb):	>100,000	5	20,000	based on predictions for acute fish
Chronic Aquatic (ppb):	>10,000	10	1,000	based on predictions for chronic fish

Factors	Values	Comments
SARs:	Polyamphoteric Polymers	
SAR Class:	Polymers-amphoteric-dispersible [redacted]	
TSCA NCC Category?	None	

Recommended Testing:

Ecotox Factors Comments: Environmental Hazard: Environmental hazard is relevant to whether a new chemical substance is likely to present unreasonable risk because the significance of the risk is dependent upon both the hazard (or toxicity) of the chemical substance and the extent of exposure to the substance. EPA determined environmental hazard for this new chemical substance based on SAR predictions for amphoteric polymers (special class within ECOSAR v.2.0). Acute toxicity values estimated for fish, aquatic invertebrates, and algae are all >100 mg/L. Chronic toxicity values estimated for fish, aquatic invertebrates, and algae are all >10 mg/L. These toxicity values indicate that the new chemical substance is expected to have low

environmental hazard. Application of assessment factors of 5 and 10 to acute and chronic toxicity values, respectively, results in acute and chronic concentrations of concern of 20 mg/L (20,000 ppb) and 1 mg/L (1,000 ppb), respectively.

Environmental Risk: Risks to the environment were evaluated by comparing estimated surface water concentrations with the acute and chronic concentrations of concern. Risks to the environment were not identified based on low hazard.

Comments/Telephone Log

Artifact	Update/Upload Time